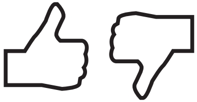
How Bitcoin works

An introduction to Bitcoin, an electronic cash system developed in 2008:

What is Bitcoin?

Bitcoin is an online currency that can be exchanged for goods and services at places that accept it or converted to other currencies via a variety of online exchanges; Bitcoin's monetary system runs on a network of its users' computers via peer-to-peer software; Bitcoin allows direct payment between two parties without going through a bank, credit card company or other financial institution; it is a decentralized and unregulated monetary system with no virtual Federal Reserve or other centralized bank



Advantages

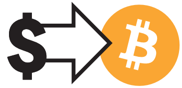
Because there is no middleman such as a bank, there are almost no transaction fees or limitations; large amounts can be transferred quickly; this cuts time and money when dealing with foreign transactions; also, the system safeguards privacy; transactions are anonymous and untraceable; however, this feature has attracted criminals to use the system

Disadvantages

The system can be volatile, with large fluctuations in the value of bitcoin; all transactions are irreversible; refunds can only be done by the person receiving the funds, if willing; early adopters have reaped greater rewards than those now joining

How to begin

You first need to set up a virtual "wallet" on your computer or mobile device; this is free open-source software that you can download from www.bitcoin.org; this wallet acts much like personal finance software to keep track of your bitcoin balance and transactions; users should treat their virtual wallet like a real one; your virtual wallet contains all your bitcoin funds, transactions and security keys, so you will need a backup in case of computer failure or other accidents

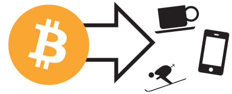


Getting bitcoins

There are two ways to earn bitcoins

By using real money: You can buy bitcoins by using real money at online payment companies or exchanges; as of Feb. 25, one bitcoin was worth roughly $500

By "mining": New bitcoins can only be minted, or "mined," by advanced Bitcoin users called miners; miners are given a complex mathematical puzzle, which they can only solve with the help of special mining software; once a miner believes he has solved a puzzle, a message goes out to the entire network; if other users agree, a new bitcoin is added to a public ledger; the successful miner is then awarded a bit of the new bitcoin for his trouble



Using bitcoins

Bitcoins can be used to buy any goods or services, if the vendor will accept them; you can send or receive bitcoins via your wallet application; for each transaction, a unique electronic signature is added for security; the transaction is verified by a miner and permanently and anonymously stored throughout the Bitcoin network

Source: bitcoin.org, weusecoins.com, lifehacker.com., Wired magazine, Washington Post

Graphic: Pai, Bay Area News Group